§ 22.865 Automatic channel selection procedures.

Operation of stations using the channels listed in § 22.857 must be in accordance with the procedures in this section.

(a) A communications channel is not available for use by a ground station if it is already in use by another ground station at the same location. Ground station equipment must automatically determine whether channels are in use by other ground stations at the same location, and may employ radio frequency signal monitoring to do so. For example, a communications channel may be determined to be in use if the received signal power on that channel at the ground station exceeds –115 dBm, which, assuming a 0 dB gain 895 MHz receive antenna, corresponds to a field strength of approximately 19 dBμV/m. Ground stations may employ an alternative method of determining whether a communications channel is in use provided that such procedure is at least as reliable as radio frequency signal monitoring.

(b) Data indicating which communications channels are available for use are transmitted by ground stations on the assigned control channels.

(c) A call is originated when an airborne mobile station selects a communications channel based on the received data from ground stations and other factors, and transmits an identification code (which identifies the specific ground station from which service is requested) on the selected communications channel. The ground station from which service has been requested may then obtain any necessary billing information and complete the call.

(d) A ground station may not transmit on a communications channel unless it has received the proper identification code. After a ground station has begun to transmit on a communications channel, that channel is not available to ground stations other than the one from which service has been requested until the call is terminated.

(e) A call is terminated by the ground station when either a hang-up signal is transmitted by the airborne mobile station, or the signal from the airborne mobile station on the communications channel is lost for a period of 15 continuous seconds. The hang-up signal is the on-off keying (50% duty cycle) of an unmodulated carrier over a period of one second with pulse duration of 5 milliseconds. However, if all carriers authorized to operate air-ground systems using the channels listed in § 22.857 agree that an alternative hang-up signal and/or procedure would be more efficient or beneficial, such alternative hang-up signal and/or procedure may be used. The carriers must jointly give prior notification to the FCC if an alternative hang-up signal and/or procedure is used.

§ 22.867 Effective radiated power limits.

The effective radiated power (ERP) of ground and airborne stations operating on the channels listed in § 22.857 must not exceed the limits in this section.

(a) The ERP of airborne mobile station transmitters must not exceed 30 Watts.

(b) The ERP of ground station transmitters must not exceed 100 Watts.

(c) The ERP of low power ground station transmitters operating pursuant to paragraph (a) of § 22.859 must not exceed 1 Watt.

§ 22.869 Assignment of control channels.

The FCC selects and assigns exclusively one control channel to each commercial aviation air-ground licensee.

§ 22.871 Control channel transition period.

The rules in this section provide for a period of transition during which the experimental air-ground system operating on the channels listed in § 22.857 will be discontinued and replaced by a system operating in full compliance with the rules in this subpart. The experimental system may continue to exclusively use a 3.2 kHz control channel contained within the bandwidth of communications channel C–2 of each channel block until September 9, 1996. After that date communications channel C–2 will be available for use by all carriers authorized to operate an air-ground system on the channels listed in § 22.857.